AMENDMENTS TO THE CLAIMS

1. (**Currently Amended**) A method of making a tobacco product ~~that has a reduced potential to contribute to a tobacco-related disease~~ comprising:

(a) providing a first tobacco product; ~~that comprises a compound that contributes to a tobacco-related disease;~~

(b) obtaining smoke ~~or a smoke condensate~~ from said first tobacco product;

(c) contacting a first isolated population of cells with said smoke ~~or smoke condensate~~ from said first tobacco product;

(d) ~~identifying a first gene that is expressed~~ measuring the level of expression of NM_003900 Sequestosome 1 in said first population of cells in response to said contact with said smoke ~~or smoke condensate~~ from said first tobacco product; ~~, wherein expression of said first gene contributes to a tobacco-related disease;~~

(e) providing a second tobacco product; ~~that has been modified to reduce expression of a second gene;~~

(f) obtaining smoke ~~or a smoke condensate~~ from said second tobacco product;

(g) contacting a second isolated population of cells with said smoke ~~or smoke condensate~~ from said second tobacco product;

(h) ~~identifying a reduction in~~ measuring the level of expression of ~~said first gene that contributes to a tobacco-related disease~~ NM_003900 Sequestosome 1 in said second population of cells~~, which are contacted~~ in response to said contact with said smoke ~~or smoke condensate~~ from said second tobacco product; ~~and~~

(i) ~~making said tobacco product from said second tobacco, wherein said tobacco product comprising said second tobacco has a reduced potential to contribute to a tobacco-related disease as compared to a tobacco product comprising said first tobacco.~~ comparing the level of expression of NM_003900 Sequestosome 1 in said first population of cells measured in step (d) with the level of expression of NM_003900 Sequestosome 1 in said second population of cells measured in step (h); and

(j) selecting the tobacco product that has a reduced expression of NM_003900 Sequestosome 1.

2. **(Currently Amended)** The method of Claim 1, wherein said first tobacco product and said second tobacco product comprise ~~is~~ a burley tobacco.

3. **(Currently Amended)** The method of Claim 1, wherein said first tobacco product and said second tobacco product comprise ~~is~~ a flue tobacco.

4. **(Currently Amended)** The method of Claim 1, wherein said ~~first tobacco is an oriental tobacco~~ second tobacco product comprises a modified tobacco.

5. **(Cancelled).**

6. **(Currently Amended)** The method of Claim 1, wherein said first tobacco product and said second tobacco product are cigarettes. ~~and second populations of cells are the same cell type.~~

7. **(Currently Amended)** The method of Claim ~~1~~ 6, wherein said cigarettes comprise a filter. ~~first and second populations of cells are immortal cells~~.

8. **(Original)** The method of Claim 1, wherein said first and second populations of cells are normal human cells of the lung, mouth, or tongue.

9. **(Original)** The method of Claim 1, wherein said first and second populations of cells are normal human bronchial epithelial (NHBE) cells.

10. **(Currently Amended)** The method of Claim 1, further comprising measuring the level of expression of a second gene in said first and second population of cells after contacting said first and second populations of cells with said whole smoke. ~~wherein said second gene that has been modified in said second tobacco is a gene in a pathway of nicotine synthesis~~.

11. **(Currently Amended)** The method of Claim 10, wherein said second gene is selected from the group consisting of: AK054816 Ferritin heavy polypeptide, NM_005345 Heat Shock 70kD protein 1A, NM_003330 Thioredoxin reductase 1, NM_002133 Heme oxygenase (decycling) 1, and NM_000963 Prostaglandin-endoperoxide synthase 2. ~~putrescine N-methyltransferase, N-methylputrescine oxidase, ornithine decarboxylase, S-adenosylmethionine synthetase, NADH dehydrogenase, phosphoribosylanthranilate isomerase, and quinolate phosphoribosyl transferase (QPTase).~~

12-52. (**Cancelled**).